

Appln No. 10/759,808
Response date January 22, 2008
Reply to Office action of August 23, 2007

REMARKS/ARGUMENTS

Claims 1-12, 14-36 and 38-54 are pending in the application, of which claims 1, 27, 53 and 54 are independent.

In the Office Action dated August 23, 2007, the Examiner rejected claims 1-4, 14-15, 17-18, 26-30, 38-39, 41-43 and 52 under 35 U.S.C. § 102(b) as allegedly unpatentable over Takahashi (U.S. Patent No. 5,805,933). However, independent claim 1 recites a summing circuit designed to sum the modified inputs from the common pixel group in a single binning instruction to generate a scalar output for the pixel group, and independent claim 27 recites at least two summing circuits to sum the modified inputs from the associated one of the programmable circuitries to simultaneously generate a scalar output representative of the desired target. While Takahashi appears to be concerned with image compression, it fails to teach or suggest the aforementioned limitations of claims 1 and 27.

The Examiner contends Takahashi's quantization circuit 1203 (figure 3) carries out the function of a single binning instruction. Applicants respectfully disagree. Takahashi's quantization circuit 1203 "quantizes the obtained frequency components by dividing them with predetermined quantization coefficients." Column 6, lines 54-57. Such quantization is not a single binning instruction.

Furthermore, both claim 1 and claim 27 recite a summing circuit designed to generate a scalar output for the pixel group. The Examiner contends that Takahashi's Huffman coders 1205 and 1210 (figure 3) generate a scalar output. Applicants respectfully disagree. Takahashi's Huffman coders 1205 and 1210 "reduce the data size by assigning shorter code lengths to a difference value with a high probability of occurrence for the DC component." Column 7, lines 20-23. In essence, Takahashi's Huffman coders 1205 and 1210 are used to compress image data, and not to generate a scalar output for the pixel group or desired target. Accordingly, independent claims 1 and 27, and all claims dependent therefrom, including claims 2-26 and 28-52, are allowable over Takahashi.

The Examiner also rejects claims 5-12, 16, 19-25, 31-36, 40 and 44-51 under 35 U.S.C. § 103(a) as allegedly obvious over Takahashi in view of one or more of Buican et al. (U.S. Patent

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Number 5,117,466), Myrick (U.S. Patent Number 6,529,276), Yiannoulos (U.S. Patent Number 5,982,318), Jachimowicz (U.S. Patent Number 5,821,911), and Warner, Jr. et al. (U.S. Patent Number 5,937,318). However, each of claims, 5-12, 16, 19-25, 31-36, 40 and 44-51 depends from either independent claim 1 or independent claim 27, both of which are allowable over Takahashi as discussed above. None of Buican et al., Myrick, Yiannoulos, Jachimowicz and Warner, Jr. remedy the deficiencies of Takahashi as set forth in reference to claims 1 and 27, as none of these references teaches or would have suggested the reconfigurable detector recited in either of claims 1 or 27. Accordingly, Applicants submit that independent claims 1 and 27 and all claims dependent therefrom, including claims 5-12, 16, 19-25, 31-36, 40 and 44-51 are allowable over Takahashi in view of one or more of Buican et al., Myrick, Yiannoulos, Jachimowicz and Warner, Jr.

The Office Action indicates that claims 53 and 54 are allowable. These claims are not amended, and therefore remain allowable.

In view of the above remarks, Applicants submit that claims 1-12, 14-36 and 38-54, are in condition for allowance, and a Notice of Allowance is earnestly solicited. However, if there are any remaining issue that can be addressed by telephone, Applicants invite the Examiner to contact Applicants' counsel at the number indicated below.

Respectfully submitted,
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